

WHAT IS CLAIMED IS:

1. A sensory inspection system and method comprising:
at least one sensor, wherein data is obtained regarding the
5 status of at least one target site by said at least one sensor;
means for transmitting said data from said at least one sensor;
means for analyzing said data from said at least one
transmitting means;
means for communicating said data analysis to direct a course of
10 action of a process.

2. The sensory inspection system and method of Claim 1,
wherein said system and method for use with a machine for forming
parts, wherein the parts formed by the machine are imageable by said
15 at least one sensor and wherein said data relates to the presence,
absence or quality of at least one of the parts.

3. The sensory inspection system and method of Claim 1,
wherein said transmitting means, said analyzing means and said
20 communication means are wirelessly related.

4. The sensory inspection system and method of Claim 1,
wherein said means for analyzing said data is a program.

5. The sensory inspection system and method of Claim 1, wherein said means for analyzing said data is a programmable microprocessor.

5 6. The sensory inspection system and method of Claim 1, wherein said at least one sensor is at least one charge coupled device camera.

7. The sensory inspection system and method of Claim 1,
10 wherein said at least one sensor is at least one near-infrared camera.

8. The sensory inspection system and method of Claim 1, wherein said at least one sensor is an optical imaging device capable
15 of generating computer readable image data of a visual representation.

9. The sensory inspection system and method of Claim 3, wherein said means for wirelessly transmitting said data and said
20 means for wirelessly transmitting said analysis results is a spread spectrum radio frequency signal.

10. The sensory inspection system and method of Claim 3, wherein said means for wirelessly transmitting said data and said

means for wirelessly transmitting said analysis results is an infrared signal communication platform.

11. A part-forming machine, comprising:

5 a mold;

means for ejecting at least one of the parts from said mold; and

a sensory inspection system for assessing the status of at least one part relative to said mold and for controlling said ejecting means subsequent to said assessment.

10 12. The part-forming machine of Claim 11, wherein said mold has two halves, each having an interior and an exterior, said interior of each said half having a planar surface and said interior of at least one said half also having at least one part forming cavity, and
15 wherein said sensory inspection system has a sensor for capturing an image, said image capture sensor positioned in said interior of the first said half of said mold, and said image capture sensor in view of the second said half of said mold at a substantially parallel angle with said planar surface thereof, wherein an image of the parts
20 formed by said machine are captured by said image capture sensor.

13. The machine of Claim 11, wherein said ejecting means is at least one ram.

14. The machine of Claim 11, wherein said sensor is at least one complementary metal-oxide semiconductor (CMOS) imaging device.

15. The machine of Claim 11, wherein said sensor is at least
5 one near-infrared sensor.

16. The machine of Claim 11, wherein said sensory inspection system comprises at least one sensor and a wireless image processing system integrated into at least one analytically-adept
10 sensor/processor device.

17. A machine for forming parts, comprising:
a mold having an interior and an exterior;
means for ejecting at least one of the parts from said mold;
15 means for controlling said ejecting means;
a sensory inspection system having means for capturing an image;
and

means for analyzing the image captured by said sensor device, said analyzing means in wireless communication with said sensor
20 device, said analyzing means generating an indication of the presence, absence or quality of at least one of the parts, said analyzing means in wireless communication with said ejection means, wherein said ejection means is responsive to said indication.

18. The machine of Claim 17, wherein said ejecting means is at least one ram.

19. The machine of Claim 17, wherein said analyzing means and
5 said controller means is a programmable microprocessor.

20. The machine of Claim 17, wherein said image capture means is a sensor.

10 21. The machine of Claim 20, wherein said sensor is a near-infrared sensor and further comprising an infrared emitting source, wherein said infrared emitting source illuminates at near-infrared frequencies.

15 22. The machine of Claim 17, wherein at least one image capture source is carried on said interior of said mold; said image capture source capable of acquiring a plurality of images of a plurality of part mold cavities.

20 23. The machine of Claim 22, wherein the two halves of said mold are adapted to separate at a relatively parallel direction of travel, said image capture source is in view of one said half of said mold along said direction of travel, and the parts formed by said machine are imageable by said image capture source during mold

travel.

24. A method of inspecting the status, presence, absence and quality of target, comprising the steps of:

- 5 a. acquiring an image of the target;
- b. transferring said image to an image analyzer via wireless transfer means;
- c. analyzing said image; and
- d. sending a signal to a controller, via wireless
- 10 transfer means, wherein said controller is responsive to said signal from said image analyzer.

25. The method of Claim 24, wherein said wireless transfer means is a spread-spectrum radio frequency communication platform.

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26. The method of Claim 24, wherein said wireless transfer means is an infrared communication system.

27. A wireless sensory inspection system for use with a
20 machine, comprising:

at least one sensor, wherein at least one target is imageable by said at least one sensor;

at least one wireless transmitter for transmitting the image captured by said at least one sensor;

at least one image analyzer for analyzing the image received from said at least one wireless transmitter for an indication of the status of said at least one target; and

at least one wireless transmitter for transmitting said
5 indication of the status of said at least one target to a controller, wherein said controller wirelessly signals at least one operational direction in response to said indication and said at least one operational direction controls performance of the machine having said sensory inspection system incorporated therewith.

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28. A sensory inspection system for use with a machine, comprising,

at least one sensory device having wireless data communication capabilities; and

15 at least one host computer, wherein sensory information from said at least one sensory device is received and analyzed, and wherein at least one task of the machine is directed thereby.

29. The sensory inspection system of Claim 28, further
20 comprising a wireless input/output controller for the machine.

30. The sensory inspection system of Claim 28, further comprising at least one fiber optic bundle linked to said at least one sensory device.